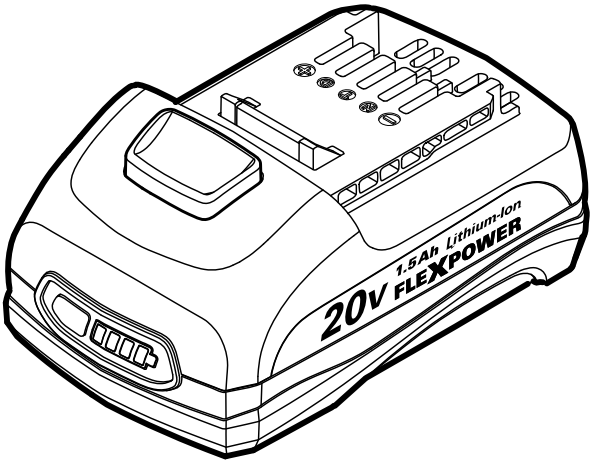
20V Lithium-Ion Battery Pack



252-8029

For questions/comments, technical assistance or repair parts – Please call toll free: 1-866-917-4374 (M – F 8am – 6pm EST)

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand Operator's Manual. Save These Instructions For Future Reference.

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SAFETY SYMBOLS

Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and more safely.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
∿	Alternating current	Type of current
⎓	Direct current	Type of characteristic of current
n_o	No-load speed	Rotational speed at no load
lbs	Pounds	Weight
⧈	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	**⚠ WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eye-glasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.**

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

SAFETY INSTRUCTIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING

SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

⚠ DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS

⚠ WARNING: Read all safety warnings and instructions!

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

The "term power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

⚠ WARNING: Risk of fire and electric shock. Dry location use only. Do not expose to rain. Risk of injury.

WORK AREA SAFETY

1. **Keep the work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks that may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

BATTERY TOOL USE AND CARE

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When the battery pack is not in use, keep it away from other metal objects, such as paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact.** If contact accidentally occurs, flush with water. If liquid contacts eyes, also seek medical help. Liquid ejected from the battery may cause irritation or burns.

SERVICE

1. **Have your power tool serviced by a qualified repair person, using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

SPECIFIC SAFETY RULES FOR BATTERY PACK

1. **Use battery only with chargers listed.**

Battery pack	Charger
252-8029	252-8036
	252-8037

SAFETY INSTRUCTIONS

2. **Know your power tool.** Read the Instruction Manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire, and serious injury.

3. **Do not place the battery near fire or heat.** This will reduce the risk of explosion and possible injury.

4. **Do not crush, drop or damage the battery pack.** Do not use a battery pack or charger that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.

5. **Batteries vent hydrogen gas and can explode in the presence of a source of ignition, such as a pilot light.** To reduce the risk of serious personal injury, never use any cordless product in the presence of an open flame. An exploded battery can propel debris and chemicals. If exposed, flush the exposed area with water immediately.

6. **Do not charge the battery in a damp or wet location.** Following this rule will reduce the risk of electric shock.

7. **For best results, your battery should be charged in a location where the temperature is more 41°F (5°C) but less that 122°F (50°C).** Do not store outside or in vehicles.

8. **Under extreme usage or temperature conditions, battery leakage may occur.** If liquid comes in contract with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets in your eyes, flush them with clean water for at least 10minutes, and then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.

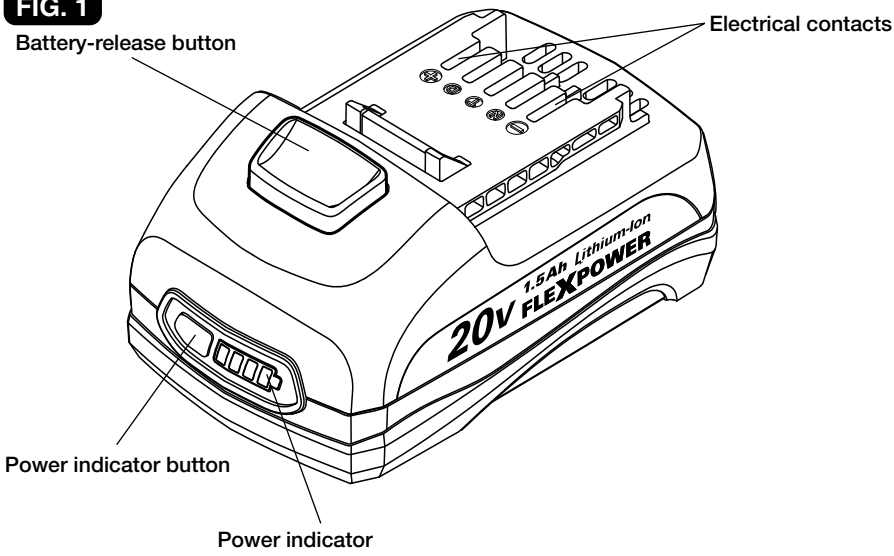
9. **Do not let gasoline, oils, petroleum-based products, etc. come in contract with plastic parts.** They contain chemicals that can damage, weaken or destroy plastic.

10. **Have your battery pack serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the battery pack is maintained.

11. **Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you lend someone this tool, lend these instructions also to prevent misuse of the product and possible injury.

OVERVIEW

FIG. 1



SPECIFICATIONS

Battery Type	Lithium-Ion
Battery Voltage	20V DC
Battery weight	1.0 lb. (0.45kg)
Battery capacity	1.5Ah
Operating temperature	-4°F(-20°C)—104°F (40°C)

ASSEMBLY

⚠ WARNING: If any part is broken or missing, DO NOT attempt to plug in the power cord, attach the battery, or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

⚠ WARNING: Your tool should never be connected to the power source when you are assembling parts, making adjustments, installing or removing application tools, cleaning, or when it is not in use. Disconnecting the tool will prevent accidental starting, which could cause serious personal injury.

CONTENTS

Battery pack and instruction manual

UNPACKING

1. This product has been shipped completely assembled.
2. Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
3. Inspect the tool carefully to make sure that no breakage or damage occurred during shipping.
4. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

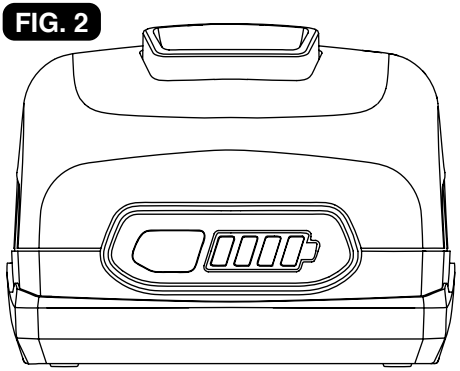
OPERATION

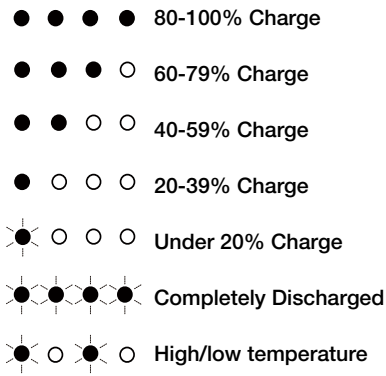
POWER INDICATOR (Fig. 2)

This Lithium-Ion battery pack is equipped with a power indicator that displays the battery pack's charge status. Press the power indicator button to display the LED lights. The LED lights will stay lit for approximately 4 seconds.

NOTICE: The power indicator can be used whether the battery is attached to or removed from tool.

FIG. 2





LOW CAPACITY WARNING

If one LED on the power indicator begins to flash, the battery pack's charge is under 20% capacity and should be recharged soon.

Unlike other battery pack types, Lithium-Ion battery packs deliver fade-free power for their entire run time. The tool will not experience a slow, gradual loss of power as you work. To signal that the battery pack is at the end of its run time and needs to be charged, power to the tool will drop quickly.

The power indicator will begin to display four flashing LED lights when it is completely discharged. When this happens, remove the tool from the workpiece and charge the battery pack as needed.

BATTERY PROTECTION

To protect the battery from damage and prolong its life, the battery pack circuitry will turn off the battery pack if it becomes overloaded or if the temperature becomes too high during use. This may happen in extremely high torque, binding and stalling situations. The battery pack will begin normal operation when it cools down.

The power indicator will display four flashing LED lights if the circuitry detects a momentary overload. You can conveniently reset the battery pack by releasing the power-tool trigger. Press the power indicator button again to display the remaining charge.

NOTICE: If the power indicator continues to flash four LED lights after resetting, place the battery pack on the charger to evaluate the battery condition.

NOTICE: A significantly reduced run time after fully charging the battery pack indicates that the battery is near the end of its usable life and must be replaced.

OPERATION

COLD WEATHER OPERATION

When the battery pack is very cold, it may "pulse" for the first minute of use to warm itself. Put the battery pack on a tool and use the tool in a light application. After about a minute, the battery pack will have warmed itself and will operate normally.

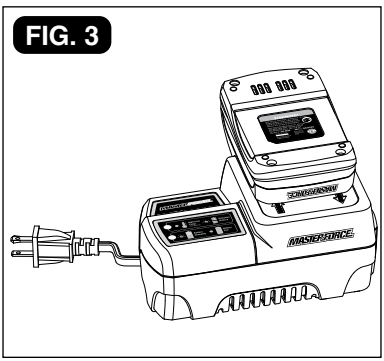
WHEN TO CHARGE THE BATTERY PACK

The Lithium-Ion battery can be charged at any time and will not develop a "memory" when charged after only a partial discharge. It is not necessary to run down the battery pack charge before recharging. Remove the battery pack from the tool when it is convenient for you and your job.

1. Use the power indicator to determine when you need to recharge the battery pack.
2. You can "top-off" your battery pack's charge before starting a big job or long period of use.
3. Due to Lithium-Ion's fade-free properties, the only time it is necessary to charge the Lithium- Ion battery pack is when the pack has reached the end of its charge. To signal the end of charge, power to the tool will drop quickly. Charge the battery pack as needed.

HOW TO CHARGE THE BATTERY PACK (FIG. 3)

FIG. 3



A fully discharged battery pack will charge about 30 minutes (with charger 252-8037) in the desired surrounding temperature.

1. Charge the battery pack with the correct charger.
2. Connect the charger to a power supply .
3. Attach the battery pack to the charger by aligning the raised ribs of the battery pack with the slot in the charger. Slide the battery pack onto the charger.
4. The charger will communicate with the battery pack's circuitry to evaluate the condition of the battery pack.
5. During normal charging, the green LED on the charger will flash continuously.
6. After charging is complete, the green LED on the charger will be on. The power indicator LED lights will not be displayed when the power indicator button is pressed while the battery pack is on the charger.
7. The battery pack will fully charge, but will not overcharge, if left on the charger.

OPERATION

LED FUNCTIONS OF CHARGER (FIG. 4)

FIG. 4

LED INDICATOR	BATTERY PACK	RED LED	GREEN LED	ACTION
HI / LO TEMP.	Hot/Cold battery	On	Off	Fast charge will begin when battery returns to between 50°F (10°C) and 104°F (40°C)
DEFECTIVE BATTERY	Defective	Flashing	Off	Battery pack or charger is defective
BATTERY CHARGING	Charging	Off	Flashing	Charging
BATTERY FULL	Fully charged	Off	On	Charging is complete

CHARGING A HOT BATTERY PACK

If the battery pack is above the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery pack cools down to approximately 122°F, the charger will automatically begin charging.

CHARGING A COLD BATTERY PACK

If the battery pack is below the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery warms to a temperature of more than 41°F (5°C), the charger will automatically begin charging .

DEFECTIVE BATTERY

If the charger detects a problem, the red LED will begin flashing and the green LED will be off.

1. If registering as defective, remove and reinsert the battery pack in the charger. If the LED status reads “defective” a second time, try to charge a different battery pack.
2. If a different battery pack charges normally, dispose of the defective battery pack (see Maintenance section).
3. If a different battery pack also indicates “defective,” the charger may be defective.

MAINTENANCE

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields when using compressed air to clean tool. If the operation is dusty, also wear a dust mask.

⚠ WARNING: To avoid serious personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.

BATTERIES:

The battery pack is equipped with Lithium-Ion rechargeable batteries. The duration of use from each charge will depend on the type of work performed.

The batteries in this tool have been designed to provide maximum trouble-free life. Like all batteries, they will eventually wear out. Do not disassemble the battery pack or attempt to replace the batteries. Handling the batteries, especially when wearing rings and jewelry, could result in a serious burn.

To obtain the longest possible battery life, read and understand the operator's manual.

It is good practice to unplug the Charger and remove the Lithium-Ion battery pack when it is not in use. For Lithium-Ion battery pack storage longer than 30 days:

1. Store the Lithium-Ion battery pack where the temperature is below 80°F (26°C) and free of moisture.
2. Store Lithium-Ion battery packs in a 30%-50% charged condition.
3. Every six months of storage, fully charge the Lithium-Ion battery pack.
4. Exterior may be cleaned with a cloth or soft non-metallic brush.

BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

To preserve natural resources, please recycle or dispose of batteries properly. This product contains Lithium-Ion batteries. Local, state, or federal laws may prohibit disposal of Lithium-Ion batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.

⚠ WARNING: Upon removal of the battery pack for disposal or recycling, cover the battery pack's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Lithium-Ion batteries must be recycled or disposed of properly. Never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to com-ply with these warnings could result in fire and/or serious injury.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The battery pack isn't charging	Unconnected to charger	Attach the battery pack to the charger.

NOTES

20V Lithium-Ion Battery Pack

WARRANTY

90-DAY MONEY BACK GUARANTEE:

This MASTERFORCE® brand power tool carries our 90-DAY Money Back Guarantee. If you are not completely satisfied with your MASTERFORCE® brand power tool for any reason within ninety (90) days from the date of purchase, return the tool with your original receipt to any MENARDS® retail store, and we will provide you a refund – no questions asked.

3-YEAR LIMITED WARRANTY:

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring this tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Not withstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise. This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this Merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the Merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes, seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts – Please Call Toll Free at: **1-866-917-4374**. (M-F 8am – 6pm)

SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM

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